



**ENTERPRISE  
AUTOMATION**  
A TETRA TECH COMPANY

# PROJECT PROFILE SCADA UPGRADE DESIGN

*GOLDEN STATE WATER*

## Customer Background

Golden State Water, a private entity formed by a joint venture of multiple districts around California, has been a significant player in the water sector. About five years ago, they embarked on a comprehensive review of all their sites, aiming to assess and upgrade their infrastructure. The initiative was structured to focus on SCADA

## Project Background

The project's scope was expansive, encompassing multiple districts, with EA being brought on to design new SCADA systems for the Simi Valley, Los Osos, and Orcutt Districts. The endeavor involved meticulous site evaluations, strategic PLC replacements, and the integration of modern technologies such as M340 PLCs and Red Lion OITs.

## EA Solutions

A series of strategic solutions marked Enterprise Automation's involvement in these projects to enhance efficiency and modernize the district infrastructures. EA conducted rigorous site evaluations and field assessments to pinpoint areas needing upgrades.

The technological upgrade, a core facet of the project, will involve systematically replacing near-end-of-life Momentum PLCs with state-of-the-art M340 PLCs, complemented by the integration of Red Lion OITS.

The central SCADA system, powered by Wonderware SCADA OMI InTouch, was strategically designed to standardize PLCs across all sites. As part of this work, EA has partnered with Ibra-Rmac to implement the designs soon, effectively addressing end-of-life issues and providing a modernized and updated infrastructure.

**Project Manager:**  
Paul Rahmanian



**Project Technical Lead:**  
Nicholas Blishak



A critical aspect of Enterprise Automation's contribution was the comprehensive development of documents about electrical constructions, including conduits and towers. This meticulous process included the creation of detailed P&IDs and PLC designs, addressing concerns related to end-of-life equipment, and ensuring the accuracy of the project.

Another critical aspect of EA's designs for these three GSW projects was preparing/planning for installing new instruments at some sites. This allowed all sites to have standardized IO profiles and control strategies to increase efficiency during construction and operation.

In some instances, the project necessitated the installation of new instruments to enhance overall efficiency further, underscoring the commitment to a holistic and forward-looking approach.

Looking ahead, EA's designs for the Simi Valley, Los Osos, And Orcutt Districts serve as a pilot for future expansion plans. The roadmap includes implementing these designs across all districts, with an overarching goal of covering 30 districts, ensuring a comprehensive and unified modernization effort.

A commitment to practical solutions characterized Enterprise Automation's approach to the project. From executing tasks such as site evaluations and PLC replacements to delivering a streamlined bid package for the execution phase, Enterprise Automation took charge of the entire design process while working closely with GSW's SCADA team to ensure our designs met their requirements.

EA's SCADA design provided a strong foundation for implementing an upgraded, reliable, standardized system across Golden State Water's diverse districts. As the project expands, the collaboration reflects a shared commitment to modernization, efficiency, and sustainability in the water sector, focusing on delivering practical solutions tailored to the unique needs of each site.

### Key Insights

- SCADA Upgrade
- PLC Upgrade
- OIT programs

### Key Technologies

- Upgrade from Momentum PLCs to Modicon M340s
- OIT Red Lion Graphite HMI
- AVEVA System Platform Galaxy

### Project Metrics

- EA's Services Value- \$715K
- Contract Period: 2019-Present



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